

parts are of a dull yellow shade (oil yellow I would call it), exactly as you describe the specimen in your possession. Audubon's plate is very faulty in several particulars."

Mr. Galbraith obtained only this specimen, and has no recollection of seeing another, but if he had—not knowing its desirability—he said, if a more highly plumaged bird had been in sight, it would have been shot in preference.

The other specimen referred to above is Swainson's Warbler (*Helinaia swainsoni*), of which he procured about three dozen examples, but he had parted with all for millinery purposes, except the one retained for me. The others are probably by this time adorning the hats of some of the better part of creation—the fair wearers not being aware of their great rarity.

It would seem as if this species was not at all uncommon in the locality in which Mr. Galbraith collected, since he got so many specimens of it. He knew nothing of their value, and they were collected indiscriminately with other birds suited to his business as a taxidermist.

According to Mr. Brewster, in South Carolina it required to be very carefully searched for in special localities. With a great variety of birds, Mr. Galbraith obtained a large number of Prothonotary Warblers, as well as Orange-crowned and Worm-eating, showing the locality to be a favorite resort of Swamp Warblers.

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## THE BIRDS OF THE WEST INDIES, INCLUDING THE BAHAMA ISLANDS, THE GREATER AND THE LESSER ANTILLES, EXCEPTING THE ISLANDS OF TOBAGO AND TRINIDAD.

BY CHARLES B. CORY.

[Continued from Vol. III, p. 472.]

FAMILY FALCONIDÆ.

GENUS *Pandion* SAV.

*Pandion* SAVIGNY, "Descr. de l'Egypt, Ois. p. 95, 1809."

**Pandion haliaëtus carolinensis (GMEL.).** ✓

*Falco carolinensis* "GMEL. Syst. Nat. I, p. 263 (1788)."

*Falco cayennensis* "GMEL. Syst. Nat. I, p. 263 (1788)."

*Pandion carolinensis* GOSSE, Bds. Jam. p. 19 (1847).—BRYANT, Pr. Bost. Soc. Nat. Hist. VII, p. 105 (1859) (Bahamas).—BREWER, *ib.* p. 306 (1860) (Cuba).—ALBRECHT, J. f. O. 1862, p. 204 (Jamaica).—MARCH, Pr. Acad. Nat. Sci. Phila. 1863, p. 152 (Jamaica).—GUNDL. Repert. Fisico-Nat. Cuba, I, p. 222 (1865); *ib.* J. f. O. 1871, p. 364 (Cuba); *ib.* Anal. Soc. Esp. Hist. Nat. VII, p. 158 (1878) (Porto Rico); *ib.* J. f. O. 1878, p. 158 (Porto Rico).

*Pandion haliaëtus* LEMB. Aves Cuba, p. 12 (1850).—LAWR. Pr. U. S. Nat. Mus. I, p. 65 (1878) (Dominica); *ib.* p. 194 (St. Vincent); *ib.* p. 236 (Antigua); *ib.* p. 273 (Grenada).—CORY, Bds. Bahama I. p. 131 (1881).—A. & E. NEWTON, Handb. Jamaica, p. 110 (1881).—CORY, Bds. Haiti & San Domingo, p. 125 (1885).—WELLS, List Bds. Grenada, p. 6 (1886).

*Pandion haliaëtus carolinensis* CORY, List Bds. W. I. p. 22 (1885).

Common throughout the Bahamas and Antilles.

**GENUS *Circus* LACÉP.**

*Circus* LACÉPÈDE, Mém. de l'Inst. III, p. 506, 1801.

***Circus hudsonius* (LINN.).** ✓

*Falco hudsonius* LINN. Syst. Nat. I, p. 128 (1766).

*Circus cyaneus* D'ORB. in La Sagra's Hist. Nat. Cuba, Ois. p. 19 (1840).

*Circus hudsonicus* BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860) (Cuba).—CORY, List Bds. W. I. p. 22 (1885).

*Circus hudsonius* GUNDL. Repert. Fisico-Nat. Cuba, I, p. 224 (1865).—BRYANT, Pr. Bost. Soc. Nat. Hist. XI, p. 65 (1867) (Bahamas).—GUNDL. J. f. O. 1871, p. 369 (Cuba).

*Circus cyaneus* var. *hudsonius* CORY, Bds. Bahama I. p. 128 (1880).

Cuba and Bahamas.

**GENUS *Rupornis* KAUP.**

*Rupornis* KAUP, Classif. Säug. u. Vög. 1844.

***Rupornis ridgwayi* CORY.**

*Rupornis ridgwayi* CORY, Journ. Bost. Zool. Soc. II, p. 46 (1883); *ib.* Auk, I, p. 4 (1884); *ib.* Bds. Haiti & San Domingo, p. 121 (1885); *ib.* List Bds. W. I. p. 22 (1885).

SP. CHAR. *Male*:—Above slaty brown; shafts of the feathers of the head and upper back dark brown; underparts slaty, faintly touched with

rufous on the belly and abdomen; chin dull white; shoulders and thighs rufous, the latter much the brighter, and faintly pencilled with indistinct pale lines; wings and tail dark brown, imperfectly banded with dull white, and showing various shadings of a rufous tinge; all the outer primaries imperfectly banded with white, gradually becoming fainter on the outer webs, until just perceptible on the sixth, the rest of the primaries and secondaries with the outer web dark brown, and the inner webs thickly banded with white, showing traces of rufous.

Length, 13.75; wing, 9.15; tail, 6.; tarsus, 2.75; bill, 1.20.

*Female*.—Top of the head and neck brownish ash, becoming darker on the back; the feathers of the back and tertiaries edged with rufous; underparts dark rufous, the feathers narrowly banded with white; thighs showing the rufous much brighter, the feathers banded with very fine pale lines; crissum white, with rufous bands near the tips; under part of breast slaty, shading into dull white on the throat; the shafts of the feathers on the throat and breast dark brown, showing in hair-like lines; the rest as in the male.

Length, 14.50; wing 10.; tail, 6.45; tarsus, 2.65; bill, 1.25.

*Immature Male*.—In general appearance much like *Buteo pennsylvanicus*. Underparts dull white, the feathers slightly tinged with rufous, the centre of the surface feathers showing a stripe of brown, giving the body a striped appearance; thighs rufous, but paler than in the adult; above much resembling the adult; the white wing- and tail-bands replaced by rufous bands on the terminal half of the feathers.

HABITAT. San Domingo.

Mr. Gurney mentions *Rupornis magnirostris* from the Island of Martinique (Ibis, 1876, p. 482), but says that it might have possibly belonged to one or the other of the two Central American forms, which at that time had not been separated from it.

#### GENUS *Buteo* CUVIER.

*Buteo* "Cuv. Leç. d'Anat. Comp. I, tabl. ii, Ois. 1799-1880."

#### *Buteo borealis* (GMEL.).

*Falco borealis* GMEL. Syst. Nat. II, p. 226 (1788).

*Buteo borealis* GOSSE, Bds. Jam. p. 11 (1847).—LEMB. Aves Cuba, p. 18 (1850).—BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860) (Cuba).—ALBRECHT, J. f. O. 1862, p. 203 (Jamaica).—MARCH, Pr. Acad. Nat. Sci. Phila. 1863, p. 151 (Jamaica).—GUNDL. Repert. Fisi-co-Nat. Cuba I, p. 223 (1865).—BRYANT, Pr. Bost. Soc. Nat. Hist. XI, p. 64 (1867) (Bahamas).—GUNDL. J. f. O. 1871, p. 365 (Cuba); *ib.* 1878, p. 158 (Porto Rico); *ib.* Anal. Soc. Esp. Hist. Nat. VII, p.

159 (1878) (Porto Rico).—CORY, Bds. Bahama I. p. 131 (1880).—A. & E. NEWTON, Handb. Jamaica, p. 110 (1881).—CORY, List Bds. W. I. p. 22 (1885).

Recorded from Cuba, Jamaica, Porto Rico, and Bahamas. Mr. J. H. Gurney writes me he has an example of this species from Haiti.

### **Buteo latissimus (WILS.).**

*Falco latissimus* WILS. Am. Orn. I. p. 92 (1812).

*Buteo latissimus* LEMB. Aves Cuba, p. 19 (1850).—CORY, Ibis, 1886, p. 473 (St. Vincent).

*Buteo pennsylvanicus* BREWER. Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860) (Cuba).—GUNDL. Repert. Fisico-Nat. Cuba, I, p. 223 (1865); *ib.* J. f. O. 1871, p. 366 (Cuba).—LAWR. Pr. U. S. Nat. Mus. I, p. 194 (1878) (St. Vincent); *ib.* p. 236 (Antigua); *ib.* p. 273 (Grenada).—GUNDL. Anal. Soc. Esp. Hist. Nat. VII, p. 160 (1878) (Porto Rico); *ib.* J. f. O. 1878, p. 158 (Porto Rico).—ALLEN. Bull. Nutt. Orn. Club. V, p. 169 (1880) (Santa Lucia).—LISTER. Ibis. 1880, p. 43 (St. Vincent).—CORY, List Bds. W. I. p. 22 (1885).—WELLS, List Bds. Grenada, p. 6 (1886).

Common winter visitant. and possible resident in the Lesser Antilles.

Recorded from Cuba, Porto Rico, and Lesser Antilles.

### **GENUS Accipiter BRISS.**

*Accipiter* BRISSON. Orn. I, p. 310. 1760.

### **Accipiter gundlachi LAWR.**

*Astur cooperi* LEMB. Aves Cuba, p. 17 (1850).—CAB. J. f. O. 1854.

*Nisus pileatus* LEMB. Aves Cuba, Suppl. p. 125 (1850).

*Accipiter cooperi* BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860).

*Accipiter pileatus* BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860) (?)

*Accipiter mexicanus* BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860).

*Accipiter gundlachi* LAWR. Ann. Lyc. N. Y. 1862, p. 252.—GUNDL. Repert. Fisico-Nat. Cuba, I, p. 224 (1865).—SCL. & SALV. Nom Avium Neotr. p. 120 (1873).—SHARPE, Cat. Bds. Brit. Mus. I, p. 137 (1874).—CORY, List Bds. W. I. p. 22 (1885).

*Cooperastur gundlachi* GRAY, Handl. Bds. I, p. 33 (1869).

*Nisus cooperi* var. *gundlachi* BD. BWR. & RIDGW. Hist. N. Am. Bds. III, p. 22 (1874).

*Nisus gundlachi* RIDGW. Studies Am. Falc. p. 104 (1876).

“Adult male:—Front, crown, and occiput sooty-black; upper plumage dull bluish ash, the feathers of the back with brownish

margins; tail of the same color as the back, partly tinged with dull rufous and crossed with four brown bars, three of which are imperfect, being but little developed on the outer webs, the outer bar, however, crosses both webs, and is narrowly tipped with white; quill feathers brown, having the shafts, as are also those of the tail-feathers, reddish brown; cheeks dusky ash; space forward of the eye pale dull rufous; a line of whitish feathers runs along the edge of the crown and extends over the eye; throat ashy white tinged with rufous; sides of the neck, upper part of the breast and a band running to the hind neck, grayish ash; lower portion of the breast and upper part of the abdomen rufous, the feathers very narrowly edged with dull white, lower part of abdomen of a paler rufous, with transverse bars of dull white; long feathers of the sides grayish ash tinged with rufous and destitute of bars or spots; sides just above the junction of the tail plain rufous; thighs of a bright but rather pale rufous, the feathers having darker sub-marginal ends, terminating with very narrow edgings of dull white; under wing-coverts and axillars bright rufous barred with white; the feathers of the throat, breast and sides have their shafts dark brown; upper tail-coverts grayish ash, lower white; bill horn color, with a whitish mark on the tooth and also on the edge of the lower mandible near its base; legs greenish yellow.

"Length about 18 inches; wing from flexure  $9\frac{3}{4}$ ; tail  $7\frac{3}{4}$ ; tarsus  $2\frac{3}{4}$ ."  
(LAWR., orig. descr., l. c.)

HABITAT. Cuba.

### *Accipiter fringilloides* VIG. ✓

*Accipiter fringilloides* VIG. Zool. Journ. III, p. 434 (1828).—DENNY, P. Z. S. 1847, p. 38.—BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860).—GRAY, Handl. Bds. I, p. 32 (1869).—GUNDL. J. f. O. 1871, p. 368.—SCL. & SALV. Nom. Avium Neotr. p. 120 (1873).—SHARPE, Cat. Bds. Brit. Mus. I, p. 135 (1874).—CORY, Bds. Haiti & San Domingo, p. 120 (1885); *ib.* List Bds. W. I. p. 22 (1885).

*Nisus fringilloides* D'ORB. in La Sagra's Hist. Nat. Cuba, Ois. p. 18 (1840).—LEMB. Aves Cuba, p. 128 (1850).—RIDGW. Studies Am. Falc. p. 117 (1876).

*Nisus fuscus* LEMB. Aves Cuba, p. 128 (1850).—GUNDL. J. f. O. 1854.—CORY, Bull. Nutt. Orn. Club, VI, p. 154 (1881).

*Accipiter fuscus* BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860).

*Nisus fuscus* var *fringilloides* BD. BWR. & RIDGW. Hist. N. Am. Bds. III, p. 223 (1874).

SP. CHAR. *Female*.—Resembles *Accipiter fuscus*, but plumage much paler; above brown, the concealed portions of the feathers showing much white; concealed feathers of the back regularly marked with broad spots of white; tail pale brown, showing five somewhat indistinct

bands of darker brown; under surface of tail dull white, regularly banded with brown; breast and belly white, the shafts of the feathers dark brown, showing hair-like lines over the whole surface; these lines are in many cases bordered with pale brown, giving the appearance of arrow-shaped markings; under tail-coverts white; quills brown, barred with white on the inner webs; under surface of wings white, barred with brown.

Length, 11.50; wing 7.; tail, 5.50; tarsus, 1.75.

HABITAT. Cuba, Haiti, and San Domingo.

Dr. Gundlach has a fine adult male of this species in his collection. It is smaller than the female, as would be expected, and has the cheeks and sides of the throat tinged a beautiful orange brown, the color also showing in the breast marking.

The female described was killed a few miles from Port au Prince, Haiti, during March, 1881. It was the only one seen.

### *Accipiter velox* (WILS.).

*Falco velox* "WILS. Am. Orn. V, p. 116 (1812)."

*Accipiter fuscus* BRYANT, Pr. Bost. Soc. Nat. Hist. VII, p. 105 (1859) (Bahamas).—CORY, Bds. Bahama I. p. 128 (1880); *ib.* List Bds. W. I. p. 22 (1885).

Accidental in the Bahamas.

### GENUS *Urubitinga* LESS.

*Urubitinga* LESSON, Rev. Zool. 1839, p. 132.

### *Urubitinga anthracina* (LICHT.). ✓

*Falco anthracinus* LICHT. in Mus. Berol. undè Nitzsch. Pteryl. p. 83 (1840).

*Morphnus urubitinga* LEMB. Aves Cuba, p. 14 (1850).—ALBRECHT, J. f. O. 1862, p. 204 (Jamaica).

*Hypomorphus gundlachi* BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860) (Cuba).

*Hypomorphnus gundlachi* GUNDL. Repert. Fisico-Nat. Cuba, I, p. 223 (1865); *ib.* J. f. O. 1871, p. 365 (Cuba).

*Urubitinga anthracina* SHARPE, Cat. Bds. Brit. Mus. I, p. 215 (1874) (Cuba).—LAWR. Pr. U. S. Nat. Mus. I, p. 194 (1878) (St. Vincent).—LISTER, Ibis, 1880, p. 43 (St. Vincent).—CORY, List Bds. W. I. p. 22 (1885).—WELLS, List Bds. Grenada, p. 6 (1886) (?) —CORY, Ibis, 1886, p. 473 (St. Vincent).

Records from Cuba, Jamaica, St. Vincent, and Grenada (?)

GENUS *Falco* LINN.

*Falco* LINNÆUS, Syst. Nat. I, p. 124, 1766.

*Falco peregrinus anatum* (BONAP.). ✓

*Falco anatum* BP. Geog. & Comp. List, p. 4 (1834).—GOSSE, Bds. Jam. p. 16 (1847).—BRYANT, Pr. Bost. Soc. Nat. Hist. VII, p. 105 (1859) (Bahamas); *ib.* BREWER, p. 306 (1860) (Cuba).—ALBRECHT, J. f. O. 1862, p. 204 (Jamaica).—MARCH, Pr. Acad. Nat. Sci. Phila. 1863, pp. 152, 304 (Jamaica).—GUNDL. Repert. Fisico-Nat. Cuba, I, p. 225 (1865); *ib.* J. f. O. 1871, p. 371 (Cuba); *ib.* 1878, p. 158 (Porto Rico); *ib.* Anal. Soc. Esp. Hist. Nat. VII, p. 161 (1878) (Porto Rico).

*Falco peregrinus* LEMB. Aves Cuba, p. II (1850).—BRYANT, Pr. Bost. Soc. Nat. Hist. XI, p. 64 (1867) (Bahamas).—A. & E. NEWTON, Handb. Jamaica, p. 110 (1881).—CORY, List Bds. W. I. p. 22 (1885).

*Falco communis* SUNDEV. Oefv. Af. K. Vet. Akad. För. 1869, p. 586 (St. Bartholomew).—CORY, Bds. Bahama I. p. 129 (1880).

*Falco communis* var. *anatum* LAWR. Pr. U. S. Nat. Mus. I, p. 487 (1878) (Antigua); *ib.* p. 240 (Barbuda).

Many records from the Antilles; specimens have been taken in the Bahamas, Cuba, Jamaica, Antigua, Barbuda, Porto Rico, and St. Bartholomew.

*Falco columbarius* LINN. ✓

*Falco columbarius* LINN. Syst. Nat. I, 10th ed. p. 90 (1758); *ib.* 12th ed. p. 128 (1766).—D'ORB. in La Sagra's Hist. Nat. Cuba, Ois. p. 23 (1840).—GOSSE, Bds. Jam. p. 17 (1847).—SUNDEV. Oefv. Af. K. Vet. Akad. För. 1869, p. 601 (Porto Rico).—A. & E. NEWTON, Handb. Jamaica, p. 110 (1881).—CORY, Bds. Haiti & San Domingo, p. 123 (1885); *ib.* List Bds. W. I. p. 22 (1885).

*Hypotriorchis columbarius* BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860) (Cuba).—SCL. P. Z. S. 1861, p. 79 (Jamaica).—ALBRECHT, J. f. O. 1862, p. 203 (Jamaica).—MARCH, Pr. Acad. Nat. Sci. Phila. 1863, p. 152 (Jamaica).—GUNDL. Repert. Fisico-Nat. Cuba, I, p. 225 (1865); *ib.* J. f. O. 1871, p. 372 (Cuba); *ib.* 1878, p. 158 (Porto Rico); *ib.* Anal. Soc. Esp. Hist. Nat. VII, p. 162 (1878) (Porto Rico).

*Æsalon columbarius* WELLS, List Bds. Grenada, p. 6 (1886).

Recorded from San Domingo, Porto Rico, Cuba, Jamaica, Grenada, and St. Thomas.

*Falco sparverius* LINN.

*Falco sparverius* LINN. Syst. Nat. I, 10th ed. p. 90 (1758); *ib.* 12th ed. p. 128 (1766).—GMEL. Syst. Nat. I, p. 284 (1788).—LATH. Ind. Orn.

- p. 42 (1790).—VIEILL. Enc. Méth. III, p. 1234 (1820).—WAGL. Isis, 1831, p. 517.—AUD. Bds. Am. I, p. 94 (1839).—CASSIN, in Baird's Bds. N. Am. p. 13 (1860).—SALV. P. Z. S. 1867, p. 158.—SUNDEV. Oefv. Af. K. Vet. Akad. För. 1869, p. 586.—SCHLEG. Rev. Accipitr. p. 45 (1873).—COUES, Key N. Am. Bds. p. 537 (1884).—CORY, Bds. Bahama I. p. 103 (1880); *ib.* List Bds. W. I. p. 22 (1885).
- Falco noveboracensis* GMEL. Syst. Nat. I, p. 284 (1788).
- Tinnunculus sparverius* VIEILL. Ois. Am. Sept. pls. XII, XIII (1807).—BP. Consp. I, p. 27 (1850).—CASSIN, Pr. Acad. Nat. Sci. Phila. 1855, p. 278.—STRICKL. Orn. Syn. I, p. 99 (1855).—BRYANT, Pr. Bost. Soc. Nat. Hist. VII, p. 105 (1859); *ib.* BREWER, p. 306 (1860).—SCL. & SALV. Nom. Avium Neotr. p. 121 (1873).—GUNDL. J. f. O. 1878, p. 158 (?).—GURNEY, List Bds. Prey, p. 98 (1884).—WELLS, List Bds. Grenada, p. 6 (1886).
- Cerchneis sparverius* BP. List Eur. & N. Am. Bds. p. 5 (1838).
- Falco isabellinus* SWAINS. An. Menag. p. 281 (1838).
- Tinnunculus phalena* LESS. Mam. et Ois. p. 178 (1847).
- Pecilonis sparverius* KAUP, Mon. Falc. Cont. Orn. p. 53 (1850).—GRAY, Handl. Bds. I, p. 23 (1869).
- Tinnunculus sparverius* var. *isabellinus* RIDGW. Pr. Acad. Nat. Sci. Phila. 1870, p. 149.—BD. BWR. & RIDGW. Hist. N. Am. Bds. III, p. 171 (1874).
- Cerchneis sparveria* SILLARPE, Cat. Bds. Brit. Mus. I, p. 437 (1874).
- Cerchneis isabellina* SILLARPE, Cat. Bds. Brit. Mus. I, p. 441 (1874).
- Falco (Tinnunculus) sparverius* BD. BWR. & RIDGW. Hist. N. Am. Bds. III, p. 169 (1874).
- Tinnunculus isabellinus* GURNEY, Ibis, 1881, p. 561; *ib.* List Bds. Prey, p. 99 (1884).
- Falco sparverius isabellinus* COUES, Key N. Am. Bds. p. 538 (1884).

Several forms of this species occur in the West Indies, but vary much in different localities. I have a specimen in my cabinet from San Domingo which is apparently true *F. sparverius*.

### *Falco dominicensis* GMEL.

- Falco dominicensis* GMEL. Syst. Nat. I, p. 288 (1788).—BRYANT, Pr. Bost. Soc. Nat. Hist. XI, p. 90 (1866).
- Falco sparverius* D'ORB. in La Sagra's Hist. Nat. Cuba, Ois. p. 25 (1840).—SALLÉ, P. Z. S. 1857, p. 231.—SUNDEV. Oefv. Af. K. Vet. Akad. För. 1869, p. 586.
- Tinnunculus dominicensis* STRICKL. Orn. Syn. p. 100 (1855).—BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860).—GUNDL. Repert. Fisco-Nat. Cuba, I, p. 225 (1865).—GRAY, Handl. Bds. I, p. 24 (1869).—GUNDL. J. f. O. 1871, p. 373; *ib.* Anal. Soc. Esp. Hist. Nat. VII, p. 163 (1878).—GURNEY, List Bds. Prey, p. 99 (1884).
- Tinnunculus sparverius* CASSIN, Pr. Acad. Nat. Sci. Phila. 1860, p. 374.

- Falco leucophrys* RIDGW. Pr. Acad. Nat. Sci. Phila. 1870, p. 147.  
*Tinnunculus leucophrys* RIDGW. Pr. Acad. Nat. Sci. Phila. 1870, p. 149.—  
 SCL. & SALV. Nom. Avium Neotr. p. 121 (1873).—BD. BWR. &  
 RIDGW. Hist. N. Am. Bds. III, p. 161 (1874).  
*Tinnunculus sparverius* var. *dominicensis* RIDGW. Pr. Acad. Nat. Sci.  
 Phila. 1870, p. 149.  
*Cerchneis leucophrys* SHARPE, Cat. Bds. Brit. Mus I, p. 442 (1874).  
*Falco sparverius* var. *dominicensis* BD. BWR. & RIDGW. Hist. N. Am. Bds.  
 III, p. 167 (1874).  
*Tinnunculus sparverius* (?) CORY, Bull. Nutt. Orn. Club, VI, p. 154 (1881).  
*Falco sparverius isabellinus* CORY, Bds. Haiti & San Domingo, p. 124  
 (1875).  
*Falco sparverius dominicensis* CORY, List Bds. W. I. p. 22 (1884).

SP. CHAR. *Male*.—Top of head slate color; forehead whitish; throat white; a maxillary and auricular black stripe; breast rufous; back dark rufous brown; tail rufous brown, tipped with white, and having a sub-terminal band of black; outer web of outer tail-feather white; wing-coverts slate color; abdomen and belly white; a patch of black on the side of the neck.

*Female*.—Top of head slate color, showing a patch of rufous; entire upper parts rufous brown, banded with dull black; underparts very pale rufous, delicately streaked and spotted with brown; throat white.

Length, 10.; wing, 7.; tail, 5. tarsus, 1.20.

HABITAT. Cuba? Haiti, San Domingo, and Porto Rico.

### *Falco sparveroides* VIG. ✓

- Falco sparveroides* VIG. Zool. Journ. III, p. 436 (1828).—D'ORB. in La Sagra's Hist. Nat. Cuba, Ois. p. 30 (1840).—RIDGW. Pr. Acad. Nat. Sci. Phila. 1870, p. 149.—COUES, Key N. Am. Bds. p. 538 (1884).  
*Tinnunculus sparveroides* GRAY, Gen. Bds. I, p. 21 (1844).—BP. Consp. I, p. 27 (1850).—STRICKL. Orn. Syn. p. 100 (1855).—LAWR. Ann. Lyc. N. Y. 1860, p. 247.—BREWER, Pr. Bost. Soc. Nat. Hist. VIII, p. 306 (1860).—SCL. & SALV. Nom. Avium Neotr. p. 121 (1873).—GURNEY, Ibis, 1881, p. 565; *ib.* List Bds. Prey, p. 100 (1884).  
*Pecilornis sparveroides* KAUP, Contr. Orn. p. 53 (1850).—BP. Rev. Mag. Zool. 1854, p. 537.—GRAY, Handl. Bds. I, p. 24 (1869).  
*Cerchneis sparveroides* SHARPE, Cat. Bds. Brit. Mus. I, p. 443 (1874).  
*Falco* (*Tinnunculus*) *sparveroides* BD. BWR. & RIDGW. Hist. N. Am. Bds. III, p. 162 (1874).  
*Falco sparverius sparveroides* CORY, List Bds. W. I. p. 22 (1885).

SP. CHAR. *Male*.—Above entirely slate blue in the adult bird; most specimens seen have the back chestnut brown mixed with slaty; rump, upper tail-coverts, and tail chestnut brown; tail with a sub-terminal

band of black; inner secondaries gray; sides of the face and throat white; a streak of black on sides of throat; slight mark on the nape and a patch near the ear-coverts black; breast pale chestnut, and becoming whitish, tinged with chestnut on the belly and vent; flanks showing a grayish tinge, and a few faint black spots.

Length (skin), about 10; wing, 6.50; tail, 4.70; tarsus, 1.50; bill, .60.

HABITAT. Cuba.

### *Falco caribbæarum* GMEL.

*Falco caribbæarum* GMEL. Syst. Nat. I. p. 284 (1788).

*Falco asalon*. var.  $\beta$ . LATH. Ind. Orn. I, p. 49 (1790).

*Cerchneis caribbæarum* (?) SHARPE, Cat. Bds. Brit. Mus. I, p. 442 (1874).

*Tinnunculus sparverius* var. *antillarum* LAWR. Pr. U. S. Nat. Mus. I, p.

487 (1878).—ALLEN, Bull. Nutt. Orn. Club. V, p. 169 (1880).

*Tinnunculus antillarum* GURNEY, Ibis, 1881, p. 547.

*Tinnunculus caribbæarum* GRIDDALE, Ibis, 1882, p. 491.—GURNEY, List Bds. Prey, p. 99 (1884).—RIDGW. Pr. U. S. Nat. Mus. VII, p. 172 (1884).

*Falco sparverius caribbæarum* CORY, List Bds. W. I. p. 22 (1885); *ib.* Ibis, 1886, p. 474.

SP. CHAR. *Male*.—General plumage above chestnut brown, heavily banded with black; forehead grayish; top of head chestnut brown, showing faint lines of black; underparts dull white, tinged with rufous on the breast, and spotted and streaked with black, heaviest on the sides of the body; primaries heavily blotched with white on the inner webs; under surface of tail brown, showing numerous bands of black, a wide subterminal band of black, and narrowly tipped with grayish white.

Length (skin) 9.50; wing, 6; tail, 4.50; tarsus, 1; bill .55.

HABITAT. Lesser Antilles.

### GENUS *Elanoides* VIEILL.

*Elanoides* "VIEILLOT, Nouv. Dict. XXIV, p. 101, 1818. Type *Falco furcatus* = *F. forficatus* LINN."

### *Elanoides forficatus* (LINN.). ✓

*Falco forficatus* LINN. Syst. Nat. I, p. 89 (1758).

*Nauclerus furcatus* GOSSE, Bds. Jam. p. 19 (1847).—BREWER, Pr. Bost.

Soc. Nat. Hist. VII, p. 306 (1860) (Cuba).—ALBRECHT, J. f. O.

1862, p. 204 (Jamaica).—MARCH, Pr. Acad. Nat. Sci. Phila. 1863,

p. 153 (Jamaica).—GUNDL. Repert. Fisico-Nat. Cuba, I, p. 225

(1865); *ib.* J. f. O. 1871, p. 370 (Cuba).—A. & E. NEWTON, Handb.

Jamaica, p. 110 (1881).

*Elanoides forficatus* CORY, List Bds. W. I. p. 22 (1885).

Recorded from Cuba and Jamaica.

GENUS *Rostrhamus* LESS.

*Rostrhamus* LESSON, Traité d'Orn. p. 55, 1831.

*Rostrhamus sociabilis* (VIEILL.). ✓

*Herpetotherus sociabilis* VIEILL. Nouv. Dict. XVIII, p. 318 (1818).

*Rostrhamus sociabilis* D'ORB. in La Sagra's Hist. Nat. Cuba, Ois. p. 15 (1840).—BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860) (Cuba).—GUNDL. Repert. Fisico-Nat. Cuba, I, p. 222 (1865); *ib.* J. f. O. 1871, p. 362 (Cuba).

*Rostrhamus hamatus* BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860) (Cuba).

*Rostrhamus sociabilis* CORY, List Bds. W. I. p. 22 (1885).

Accidental in Cuba.

GENUS *Regerhinus* KAUP.

*Regerhinus* KAUP, Mus. Senck. III, p. 262, 1845.

*Regerhinus wilsonii* (CASS.). ✓

*Cymindis wilsonii* CASSIN, Journ. Acad. Nat. Sci. Phila. new ser. I, p. 21, pl. vii (1847).—BP. Consp. I, p. 21 (1850).—LAWR. Ann. Lyc. N. Y. VII, p. 257 (1860).—SCL. & SALV. Nom. Avium Neotr. p. 122 (1873).

*Regerhinus wilsonii* KAUP, Arch. f. Naturg. 1850, p. 40.—BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860).—GUNDL. J. f. O. 1871, p. 360.—RIDGW. Studies Am. Falc. p. 159 (1876).—CORY, List Bds. W. I. p. 23 (1885).

*Cymindis uncinatus* LEMB. Aves Cuba, Suppl. (1850).—BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860).

*Regerhinus uncinatus* CAB. J. f. O. 1854, p. 80.

*Regerhinus wilsoni* GRAY, Handl. Bds. I, p. 28 (1869).

*Leptodon wilsoni* SHARPE, Cat. Bds. Brit. Mus. I, p. 333 (1874).

“*Male*:—Body above entirely dark brown, paler on the head; beneath white, every feather from the chin to the under tail-coverts crossed by several bars of bright rufous, and these colours extending upwards into a collar around the neck; 4th, 5th, and 6th primaries longest and nearly equal, external webs nearly black, internal webs of outer primaries white at base, and for nearly half their length, remaining part reddish inclining to chestnut, every primary (on its inner web) having two irregularly shaped black marks, and tipped with black. Tail of the same colour as the back, but paler, white at base, and crossed by about four broad bars, which are nearly black, the second bar from the tip accompanied by a narrow rather indistinct bar of rufous; tip of tail narrowly edged with white. Bill very large, larger than that of any other species of

this genus, yellowish white, inclining to bluish horn-colour at base. Total length 17 inches.

"*Female*.—Body above entirely light bluish ash-colour, paler on the head, beneath barred with the same, the bars having a ferruginous tinge" (CASSIN, l. c.).

HABITAT. Cuba.

### *Regerhinus uncinatus* (TEMME.).

*Falco uncinatus* TEMME. Pl. Col. 103, 104, 105 (1824).

*Cymindis uncinatus* LESS. Man. d'Orn. I, p. 91 (1828).—GRAY, Gen. Bds. I, p. 25 (1844).—BP. Consp. I, p. 21 (1850).—BURM. Th. Bras. II, p. 108 (1856).—LÉOT. Ois. Trinid. p. 36 (1866).—GRAY, Handl. Bds. I, p. 136 (1869).—PELZ. Orn. Bras. pp. 5, 398 (1871).—SCHLEG. Rev. Accipitr. p. 136 (1873).—SHARPE, P. Z. S. 1873, p. 419.—SCL. & SALV. Nom. Avium Neotr. p. 122 (1873).—WELLS, List Bds. Grenada, p. 6 (1886).

*Falco vitticaudus* MAX. Beitr. III, p. 178 (1830).

*Cymindis cuculoides* SWAINSON. Classif. Bds. II, p. 209 (1837).

*Regerhinus uncinatus* KAUP, Mus. Senckenb. III, p. 262 (1845).—CAB. in Schomb. Reis. Guian. III, p. 736 (1848).—GUNDL. J. f. O. 1871, p. 284.—CORY, List Bds. W. I. p. 23 (1885).

*Rostrhamus uncinatus* STRICKLAND. Orn. Syn. p. 136 (1855).

*Cymindis pucherani* LÉOT. Ois. Trinid. p. 40 (1866).—GRAY, Handl. Bds. I, p. 25 (1869).—FINSCH, P. Z. S. 1870, p. 557.

*Cymindis boliviensis* BURM. P. Z. S. 1868, p. 635.—GRAY, Handl. Bds. I, p. 28 (1869).

*Cymindis vitticaudus* PELZ. Orn. Bras. pp. 6, 398 (1871).

*Leptodon uncinatus* SHARPE, Cat. Bds. Brit. Mus. I, p. 330 (1874).

"*Young*.—Above brown, the dorsal feathers and wing-coverts margined with pale rufous, the upper tail-coverts broadly barred and tipped with buff; quills dark brown, with rufous-buff tips, the primaries barred with dark brown above, the secondaries more or less distinctly barred with rufous or rufous buff; the under surface of the wing ashy brown, barred with darker brown, the bases of the feathers creamy buff, washed with rufous near the tips; tail ashy brown, tipped with whitish, barred across with dark brown bars, the interspaces on the inner web creamy buff, more or less mottled with brown above, at the base barred above and below with creamy buff, like the upper tail-coverts; crown of the head dark brown, with no pale margins; sides of the face and a collar around the neck white, slightly spotted with pale brown, the ear-coverts inclining to bluish grey; under surface of body white, the throat indistinctly spotted, and the breast narrowly barred with pale brown, the bars almost linear on the under tail-coverts, those on the

thigh-feathers broader and more rufous; under wing-coverts and axillaries white, barred with pale rufous. Total length 17 inches, culmen 1-65, wing 10-4, tail 8-6, tarsus 1-45.

"Another specimen still quite young, agrees with the foregoing in the coloration of the wings and tail, but has the edgings to the feathers of the upper surface very much broader, and a broad white tip to the tail; the sides of the face and collar round the neck are creamy white, without any brown spots; the under surface of the body is also more free from spots, with here and there a feather appearing broadly barred with tawny rufous, indicative of the next change in the plumage.

"*Mature*:—Altogether different from the preceding stage. Above leaden brown, the head more slaty, the sides of the face and chin clear slaty blue; around the neck a rufous collar; quills brown, with narrow apical margins of pale rufous or buffy white, the outer secondaries rufous for nearly their whole extent, the under surface of the wing greyish, creamy white near the base, all the quills barred above and below with blackish brown; tail ashy grey, crossed by two very broad bars of black, tipped with creamy white, before which an indistinct subterminal line of ashy grey is visible, some of the outer upper tail-coverts and base of tail slightly mottled with whitish; under surface of body tawny rufous, crossed with broad bars of ochraceous buff, the under wing-coverts similarly marked, the lower ones ochraceous buff, with greyish black cross-bars.

"The next change seems to be in the undersurface, where the ochre-coloured become quite white, and whitish bars appear on the grey throat. From this stage (to judge by our specimens) it changes by a partial moult, and by a gradual change of feather at the same time; for the bars on the breast lose by degrees their rufous tint and become grey, while the back also becomes slaty grey instead of brown; the nuchal collar gradually disappears. This gradual development seems to be satisfactorily traced, with the exception of the tail, which, instead of agreeing with that of the rufous or "mature" stage, has four rather narrow black bars, like the young specimen first described. This can only be accounted for by the fact that Hawks have really no fixed laws of change in plumage, and that it is impossible for anyone to define exactly the regular sequence of the variations. No two birds are exactly alike; for one has the head more advanced, another the tail, vice versa. Thus the bird last noticed as donning his grey dress is very far advanced as regards his body-plumage, but has not moulted his tail, whereas those in the rufous dress are not so forward in their body-plumage, but have already the tail of the adult (one being in the act of moulting).

"*Adult female*:—Slaty blue above and below; no trace of a nuchal collar; under surface narrowly but irregularly barred with white,

the under tail-coverts clear buff; under wing-coverts grey, thickly barred with buffy white; quills blackish, shaded with slaty grey above, the secondaries entirely of this colour, the under surface greyish white, with black bars and tips, less conspicuous on the upper surface; tail alternately crossed with two bands of black above, with a broad intermediate band of ashy grey between, narrowly tipped with ashy grey, barred with ochraceous buff and black below, the bars very broad. Total length 17 inches, culmen 1-6, wing 11-7, tail 7-5, tarsus 1-4.

"*Adult Male*:—A little smaller than the female. Total length 16 inches, culmen 1-55, wing 11, tail 7-5, tarsus 1-4." (SHARPE, l. c.)

I have quoted Mr. Sharpe's admirable description of this species in full: as the series of specimens at my command is totally inadequate to enable me to properly describe the various stages of plumage.

The bird is recorded from Grenada, and is probably accidental in the Antilles.

### GENUS *Polyborus* VIEILL.

*Polyborus* VIEILLOT, Analyse. p. 22. 1816.

#### *Polyborus cheriway* (JACQ.). ✓

*Falco cheriway* JACQ. Beitr. p. 17, tab. 4 (1784).

*Polyborus vulgaris* D'ORB. in La Sagra's Hist. Nat. Cuba. Ois. p. 9 (1840).

—BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860) (Cuba).

*Polyborus tharus* BREWER, Pr. Bost. Soc. Nat. Hist. VIII, p. 306 (1860) (Cuba).—GUNDL. Repert. Fisico-Nat. Cuba. I, p. 221 (1865).

*Polyborus cheriway* BREWER, Pr. Bost. Soc. Nat. Hist. VIII, p. 306 (1860) (Cuba).—GUNDL. J. f. O. 1871, p. 284 (Cuba).—CORY, List Bds. W. I. p. 23 (1885).

*Polyborus brasiliensis* BREWER, Pr. Bost. Soc. Nat. Hist. VII, p. 306 (1860) (Cuba).

*Polyborus auduboni* GUNDL. J. f. O. 1871, p. 357 (Cuba) (?).

Accidental in Cuba.

### FAMILY CATHARTIDÆ.

#### GENUS *Cathartes* ILLIGER.

*Cathartes* ILLIGER, Prodr. p. 236, 1811.

#### *Cathartes aura* (LINN.). ✓

*Vultur aura* LINN. Syst. Nat. I, p. 86 (1758).

*Cathartes aura* D'ORB. in La Sagra's Hist. Nat. Cuba, Ois. p. 4 (1840).—

GOSSE, Bds. Jam. p. 1 (1847).—BRYANT, Pr. Bost. Soc. Nat. Hist. VII, p. 104 (1859) (Bahamas); *ib.* BREWER, p. 306 (1860) (Cuba).—ALBRECHT, J. f. O. 1862, p. 203 (Jamaica).—MARCH, Pr. Acad. Nat. Sci. Phila. 1863, p. 150 (Jamaica).—GUNDL. Repert. Fisico-Nat. Cuba, I, p. 221 (1865); *ib.* J. f. O. 1871, p. 253 (Cuba).—CORY, Bds. Bahama I. p. 134 (1880).—A. & E. NEWTON, Handb. Jamaica, p. 111 (1881).—CORY, List Bds. W. I. p. 23 (1885).

Recorded from the Bahamas, Cuba, and Jamaica.

#### GENUS *Catharista* VIEILL.

*Catharista* VIEILLOT, Analyse, p. 21, 1816.

#### *Catharista atrata* (BARTR.).

*Vultur atratus* BARTR. Trav. Car. p. 285 (1792).

*Cathartes atratus* MARCH, Pr. Acad. Nat. Sci. Phila. 1863, p. 151 (Jamaica).—A. & E. NEWTON, Handb. Jamaica, p. 111 (1881).

*Catharista atrata* CORY, List Bds. W. I. p. 23 (1885).

This species is claimed to have occurred in Jamaica. No other West Indian record.

### THE SENSE OF SMELL IN CATHARTES AURA.

BY IRA SAYLES.

IN the 'Standard Natural History,' edited by John Sterling Kingsley, published by S. E. Cassin & Co., Boston, Vol. IV, p. 271, in an article written by Walter B. Barrows, I read as follows:

"The name condor, Humboldt says, is from a word in the language of the Incas, signifying to smell," and adds: "There is nothing more astonishing than the almost inconceivable sagacity with which the condor distinguishes the odor of flesh from an immense distance."

Mr. Barrows then adds: "This belief in the extraordinary power of smell possessed by carrion vultures is largely an inherited or traditional one, and was long ago shown to be without foundation. That they have some smell is well known, and Owen has even shown that in the turkey buzzard the olfactory nerves